

Office of City Auditor

Management Review of the City of Seattle's Pension Systems

July 16, 1999

Project Lead: **Steve Miller,
Miller and Miller, P.S.**

City Auditor: Susan Cohen
Deputy City Auditor: David Jones

Auditors: Susan Baugh
 Susan Kraght
 Eileen Norton
 Linneth Riley-Hall
 Jerry Stein
 Scottie Veinot

Administrative Staff: Carolyn Yund
 Theresa Velasquez

July 16, 1999

Mayor Paul Schell
Seattle City Councilmembers
City of Seattle
Seattle, Washington, 98104-1876

Dear Mayor Schell and City Councilmembers:

Attached is our report on the City's three pension systems: Seattle City Employees' Retirement System, Seattle Police Relief and Pension Fund, and the Seattle Firefighters Pension Fund. We obtained comments on a draft version of this report from representatives of the three systems and, when appropriate, incorporated their comments into this final report.

We appreciate the assistance provided by the employees of the three pension systems. If you have any questions regarding this report please call me at 233-1093.

Sincerely,

Susan Cohen

cc: Michael Germann, Executive Secretary
Police Pension
Arctic Building, Room 230
700 Third Avenue
Seattle, WA 98104

Steve Brown, Executive Secretary
Firefighter's Pension Board
2200 Sixth Avenue, Suite 105
Seattle, WA 98121-1822

Roger Howeler, Executive Director
Retirement System
801 Third Avenue, Suite 300
Seattle, WA 98104-1652

Executive Summary

This review addressed several aspects of the Seattle City Employees' Retirement System (SCERS), the Seattle Police Relief and Pension Fund (Police) and the Seattle Firefighters Pension Fund (Fire). We concentrated our review on the key features of pension management: the establishment of an internal control structure, the administration of benefit payments to participants including eligibility determinations, investment management and actuarial issues including pension funding arrangements. Our recommendations which, for the most part, are minor in scope and application, are provided at the end of each section of this report.

We have concluded that the internal control structure for all three systems is conducive to providing reasonable assurance regarding the achievement of objectives in effectiveness and efficiency of operations, reliability of financial reporting and compliance with applicable laws and regulations. The internal control components, the factors we used to evaluate them, and our conclusions about the controls are described in this report. A sound internal control structure provides management with reasonable but not absolute assurance that organizational objectives will be achieved. The internal control structure provides a foundation upon which judgments related to the proper management of the pension systems may be made.

Each of the three systems effectively manages the benefit payment function in compliance with statutory requirements. There is, however, some concern that the separate administration of the three systems is not the optimum structure for efficiency. The boards of directors are provided sufficient information to oversee pension administration but may find additional information on the present value of health benefits in the Police and Fire systems useful. The use of technology in specific areas could promote efficiency and provide for enhanced protection of important information.

We have concluded that information regarding the performance of the SCERS investment portfolio is being provided to decision-makers and that mechanisms to determine compliance with applicable investment policies are in place. All three systems effectively utilize the services of consulting actuaries in the management of pension funding. The actuarial assumptions adopted by the systems appear reasonable based upon experience and in comparison to peer systems.

Scope of Review

Miller & Miller Consulting Services, P.S. was engaged by the Office of City Auditor to conduct a management review of the three pension systems administered by the City of Seattle. These three systems are the Seattle City Employees' Retirement System (SCERS), the Seattle Police Relief and Pension Fund (Police) and the Seattle Firefighters Pension Fund (Fire). Our review was conducted from January 19, 1999 to March 16, 1999 but focused on activities and data occurring at the end of calendar 1998. We concentrated our review on key aspects of pension management: the establishment of an internal control¹ structure, the administration of benefit payments to participants including eligibility determinations, investment management and actuarial issues including pension funding arrangements.

Internal Control Structure

We reviewed the design of the internal control structure encompassing the financial, compliance and operating administrative objectives of the systems. We tested key controls to determine their effectiveness. We also reviewed the methods used by management to communicate the financial condition of the systems to oversight boards and participants.

Financial and Compliance Objectives

The nature of pension systems requires an integrated approach to the review of major transaction types. Plan design and other governing documents drive pension contributions, benefit calculations and payments, investing and participant accounting. As such, we tested these types of transactions with regard to both financial and compliance objectives. Overall we tested a randomly selected sample of 150 benefit calculations and payments across the three pension systems. Other review activities addressed the reliability of financial reporting. Due to the significance of actuarial work on the solvency of the systems, we read the latest actuarial valuations and interviewed the consulting actuaries.

Operations and Administration

We reviewed the organizational structure and the roles of the governing boards in relation to administrative management and staff. Risk management practices and the use of policies and procedures in the funding and investment area were also addressed. We reviewed the administrative charges to the system to determine whether they were sufficient to fully recover actual costs. We used the *1997 Survey of State and Local Government Employee Retirement Systems* for the Public Pension Coordinating Council to provide comparative benchmark statistics in this report.

¹ Internal control consists of those elements of an organization (including its resources, systems, processes, culture, structure and tasks) that, taken together, support people in the achievement of the organization's objectives.

Pension Systems Internal Control Structure Assessment

Conclusion

The internal control structure for all three systems provides reasonable assurance regarding the achievement of objectives in the following categories:

- Effectiveness and efficiency of operations.
- Reliability of financial reporting.
- Compliance with applicable laws and regulations.

Overview

Due to its size and the nature of its operations, the internal control structure of SCERS differs from the other two systems. The operation of the internal control structures for Fire and Police are similar even though different boards and staffs administer them. There are, however, activities that are common to all three systems. All systems have staff dedicated to assisting participants in the transition from active to retired status. All three systems also perform benefit calculations and provide benefit information to the City's payroll processing function. Payroll processing uses an exception reporting system provided by the firm Advanced Data Processing (ADP). All systems report to a separate board under separate statutory provisions. All systems use consulting actuaries but their use, as described below, differs among all three systems according to their unique needs.

Certain activities are common only to Police and Fire. Both systems have staff dedicated to managing their respective health care plans through one or more third party administrators. Both systems must track different sets of beneficiaries in relation to the state's Law Enforcement Officers' and Fire Fighters' (LEOFF) benefits and apply either Cost of Living Adjustment (COLA) or contract escalator provisions as applicable. Both systems manage the process of determining disability retirement. Neither system receives employee contributions to the fund. Consulting actuaries are used for three-year cash flow forecasting purposes.

Certain activities are not common features of each of the three systems. SCERS is an advance funding system with both employee and employer contributions set at a level to fund current benefits over the life of the plan. As such, SCERS maintains a significant investment portfolio and has processes to manage the portfolio. Contribution rates are set with the assistance of consulting actuaries. The Fire system began a partial advance funding structure in 1994. The City's Chief Financial Officer manages assets accumulated under this system. Consulting actuaries are used to determine annual payments. The Fire system is mostly funded with taxes on fire insurance premiums and an allocation of property taxes. The Police system is funded almost entirely from General Fund allocations and has virtually no accumulated assets under an advance funding arrangement.

Internal Control Structure Components

Internal control consists of five interrelated components that are all integrated with the management process.

Control Environment - The control environment sets the tone of an organization, influencing the control consciousness of its people. It is the foundation for all other

components of internal control, providing discipline and structure. Control environment factors include the integrity, ethical values and competence of the entity's people; management's philosophy and operating style; the way management assigns authority and responsibility, and organizes and develops its people; and the attention and direction provided by the board of directors.

We considered the following factors in assessing the systems' control environments:

- Observations and impressions from external parties regarding management operating style.
- Composition of the Boards of Directors and the oversight they provided. Sufficiency and timeliness of information flow to these Boards.
- Provision for sufficient staff to conduct needed activities and lack of staff turnover.
- Existence of written policies and procedures and assignment of authority and responsibility among staff, management and boards.

Risk Assessment - Every entity faces a variety of risks from external and internal sources that must be assessed. A precondition to risk assessment is establishment of objectives, linked at different levels and internally consistent. Risk assessment is the identification and analysis of relevant risks to achievement of the objectives, forming a basis for determining how the risks should be managed. Because economic, industry, regulatory and operating conditions will continue to change, mechanisms are needed to identify and deal with the special risks associated with change.

We considered the following factors in assessing the systems' risk assessment structures:

- Basic program provisions are not subject to frequent change.
- Risks associated with SCERS investment portfolio are identified and managed in accordance with a written investment policy.
- Overall strategic objectives were not formally linked to relevant activity based objectives.
- Outside consultants help identify risks arising from external sources.

Control Activities - Control activities are the policies and procedures that help ensure management directives are carried out. They help ensure that necessary actions are taken to address risks to achievement of the entity's objectives. Control activities occur throughout the organization, at all levels and in all functions. They include a range of activities as diverse as approvals, authorizations, verifications, reconciliations, reviews of operating performance, security of assets and segregation of duties.

We assessed certain control activities that address objectives and related risks inherent in employee benefit programs, examples of which are described below.

Financial, Operational and Compliance Objectives:	Risks Associated with Objectives:
Ensure all eligible individuals, and only such individuals, are included in the benefit programs	Program eligibility requirements are not clearly communicated to appropriate personnel. Inaccurate employee information is provided to benefits personnel. Eligible employees are improperly excluded from participation. Nonexistent employees are entered as program participants or beneficiaries.
Accurately calculate benefits due each participant.	Plan benefit provisions are unclear or complex. Errors are made in calculating benefits. Inaccurate information is used in the benefit calculations
Summarize and track benefit information.	Lost or misplaced information
Comply with applicable laws and regulations	Personnel are unaware of applicable laws and regulations.
Generate and distribute benefits reports in an accurate and timely manner.	Lack of adequate systems. Lack of understanding of reporting requirements.
Investments are prudently managed in accordance with statutory provisions and provide for sufficient returns with reasonable risks.	Lack of policies and procedures to control investment decisions. Lack of monitoring actual activity in relation to stated policies and procedures.

We identified the key controls utilized by the three pension systems to manage the objectives and risks listed above. We also tested the operation of these key controls. The results of our tests were used to assess the related internal control structures described in the beginning of this section of the report.

Information and Communication - Pertinent information must be identified, captured and communicated in a form and timeframe that enables people to carry out their responsibilities. Information systems produce reports containing operational, financial and compliance-related information that make it possible to run and control the business. They deal not only with internally generated data, but also information about external events, activities and conditions necessary for making informed business decisions and generating external reports. Effective communication also must occur in a broader sense, flowing down, across and up the organization. All personnel must receive a clear message from top management that control responsibilities must be taken seriously. They must understand their own role in the internal control system, as well as how individual activities relate to the work of others. They must have a means of

communicating significant information upstream. There also needs to be effective communication with external parties, such as customers, suppliers and regulators.

We considered the following factors in assessing the systems' information and communication structures:

- Material transactions are reported to the boards of directors on a monthly basis.
- Information systems are developed in the context of Citywide information processing systems.
- Staff size allows for adequate communication of control related matters.
- Benefit provisions and related policies are communicated to program participants.

Monitoring - Internal control systems need to be monitored, a process that assesses the quality of the system's performance over time. This is accomplished through ongoing monitoring activities, separate evaluations or a combination of the two. Ongoing monitoring occurs in the course of operations. It includes regular management and supervisory activities, and other actions that personnel take in performing their duties. The scope and frequency of separate evaluations will depend primarily on an assessment of risks and the effectiveness of ongoing monitoring procedures. Internal control deficiencies should be reported upstream, with serious matters reported to top management and the board.

We considered the following factors in assessing the systems' monitoring structures:

- Control activities provide for review and supervision of benefit payment activities.
- Investment performance for SCERS is monitored by an external performance measurement service and the results are reported to the SCERS board on a quarterly basis.
- Actuarial reviews are conducted every two years with an update in the intervening year.
- The Washington State Auditor's Office conducts audit procedures on an annual basis during its audit of the City of Seattle.

Organization and Administration

Conclusion

Each of the three systems effectively manages the benefit payment function in compliance with statutory requirements governing benefit provisions. These statutes are City Code section 4.36 for SCERS; RCW 41.16, 41.18 and 41.26 for Fire; and RCW 41.20 and 41.26 for Police. There is, however, some concern that the separate administration of the three systems is not the optimum structure for efficiency. The boards of directors are provided sufficient information to provide oversight of pension

administration but could use additional information on the present value of health benefits in the Police and Fire systems. The use of technology in specific areas could promote efficiency and provide for enhanced protection of important information.

Overview

Each of the three systems operates under a separate board. City code sections 4.36.130 through 4.36.160 describe the composition, powers and duties of the Retirement System Board of Administration of SCERS. RCW 41.16.040-.050 and 41.18.020 describe the composition, powers and duties of the municipal firemen's pension board. RCW 41.20.010 - .040 describes the composition, powers and duties of the board of trustees of the Relief and Pension Fund of the Police Department. RCW 41.26.110 provides for the continuation of the police and the firefighters' boards for the purpose of determining claims for disability under the state's LEOFF I plan. RCW 41.26.150 provides for the continuing medical coverage for fire and police members. While there is some overlap of the individuals who shall serve on these boards (i.e., the Chair of the City Council's Finance Committee serves on both the SCERS and Firefighters' boards, and the City's Chief Financial Officer is a member of all three boards), the required composition differs for the three boards. Similarly, while there is some commonality of required duties and powers among the three boards, the powers and duties are not exactly the same. Based upon the minutes obtained for a sample of meetings for each board during 1998, we determined that these boards were addressing their statutory obligations.

The result of differences in statutes and purposes is that the three systems have separate and distinct programs, each with its own culture and operating style. This situation has some positive aspects, one of which is that each systems' staff focuses on a specific group of participants and beneficiaries. They are able to focus on one set of statutory requirements and maintain a well-developed understanding of customer needs. Another positive aspect is that administrative systems have been tailored to both specific customer needs as well as specific staff capability. The Police and Fire funds have established a tradition of moving employee representatives on their respective boards or department employees into administrative positions. This practice promotes a well-developed understanding of customer needs. Recently there has been some movement to common systems. For example, Police and Fire combined their programs in the request for proposals for third party administration of their medical claims processing under an administrative services only contract.

Review of Organization and Administration

Aside from making benefit payments through the City's payroll processing function, there are no common systems utilized by these three pension systems. A table on page 19 compares certain benchmark data obtained from the *1997 Survey of State and Local Government Employee Retirement Systems* to information from the three systems.

The survey referred to above used the active member as the per unit efficiency measure. Due to the small number of active members of Police and Fire, the survey's benchmark measurement tends to overstate the staff and cost per member. As such, we have also calculated these measures using retired members. Also, since both Police and Fire have one staff position dedicated to managing the health care program, we have eliminated that position and the related costs for our analysis. The comparison above indicates a favorable position of SCERS to the benchmark data for mid-sized (1,000 - 50,000 active members) pension systems, while both Police and Fire are unfavorable in comparison to small (fewer than 1,000 members) pension systems but are very similar to SCERS when pension only costs per retiree are compared. The benchmark data appears to support

the conclusion that administrative costs are greater when the three systems are managed separately. The question raised by this analysis is whether the three systems should consolidate their administrative functions. During our review we became aware of a special study conducted by the actuarial consulting firm of Milliman & Robertson related to only the Police and Fire systems. We were able to obtain a copy of this report from the Police Pension Office. This report, dated November 13, 1996, contained a number of findings and recommendations concerning various areas of administration. The report made two recommendations to consolidate Police and Fire administrative functions and provided estimates of potential cost savings. The Police and Fire systems, after extensive review, elected not to adopt the recommendations related to consolidation but did implement other cost saving recommendations included in the report.

As noted in the benchmark database on page 19, the total 1997 costs of administering the Police and Fire systems was \$765,000. The 1998 major cost categories for both systems were:

COST CATEGORY	POLICE	FIRE	COMBINED	PERCENT
Personnel	\$287,776	\$315,803	\$603,579	75.25%
Office Space	\$25,559	\$28,595	\$54,154	6.75%
Outside Services	\$21,643	\$38,240	\$59,883	7.47%
All Other	\$27,282	\$57,162	\$84,444	10.53%
Total	\$362,260	\$439,800	\$802,060	100.00%
Nonrecurring Costs	(\$14,786)	(\$83,081)	(\$97,867)	
Net Recurring Costs	\$347,474	\$356,719	\$704,193	

We obtained one-time 1998 costs related to personnel actions, computer system upgrades or consulting fees from the respective pension administration offices and deducted them to estimate the normal recurring costs of administration.

The large majority of administration costs are personnel related. Personnel costs are driven mainly by the separate systems and programs previously discussed. For example, Police and Fire have different pension and health care program requirements. In response, different systems have been developed to manage these programs. Without significant systems revisions, it is unlikely that administration activities could be combined with a resulting reduction in Full Time Equivalents (FTEs). Appropriate systems integration is not an insurmountable task, but would be obtained at significant cost and loss of short-term productivity. Another important factor is the capacity of other City functions to absorb these activities. For example, would the City department that manages the City employees' health care plan be able to handle a 35% increase in the number of participants with a completely different set of health care benefits? These factors indicate that the potential cost savings from consolidation activities may not be significant.

The benchmark data indicates that the current structure of separate administration is not the most cost efficient structure. This conclusion is supported in part by the special study conducted in 1996. However, the cost of the current structure should be considered in light of the customer service benefits previously discussed. Due to the recent attention to this matter and the brief analysis discussed above, we performed no further detailed work on this issue. The City is in the best position to determine the appropriate costs and benefits of the separate administration of the three systems.

One of the most important activities of the systems is the accurate payment of retirement benefits. We randomly sampled 49 benefit payments from each system made at the end of 1998. We supplemented this sample with payments made to three recently retired participants from SCERS at the end of 1998. Our total sample size was 150 which we tested for the following attributes:

- Individual is a valid retiree based on retirement evidence package.
- The proper position/salary base was used.
- All statutory benefits were accurately calculated.
- City pension payment figures matched those on ADP's payment report.
- Payment conformed to all statutory requirements.

We found no exceptions to the attributes listed above for our sample of 150 benefit calculations. As such, the audit evidence indicates that retiree benefits were properly managed in all three systems.

We found that the systems' communication structures with their boards of directors help the boards fulfill their statutory obligations. On a monthly basis each of the three boards meets and is provided with information on essentially all material transactions. The Police and Fire Boards spend considerable effort in the determination of disability retirements. Both systems have well developed processes for determining disability and must submit relevant information to the State Department of Retirement Systems for its review of board actions and affirmation, remand or rejection of disability retirement applications. During our review of the retirement files previously discussed, we noted a large percentage of disability retirements in the Fire system. We have noted that the issue of disability retirement was included as a finding in the Milliman and Robertson report dated November 13, 1996. They noted that the disability retirement percentage for the Fire system was approximately 94% of all retirements. An official from the Fire Pension office told us that this finding received a great deal of attention. Due to the recent attention to this matter and its having been previously reported, we performed no further work on this issue.

All three pension systems use different methods for tracking retiree benefit information. Police and Fire recalculate benefits whenever changes occur in LEOFF benefits (April 1), a COLA, or a contract escalator provision. Fire has somewhat automated the process for calculating benefit changes. However, Fire continues to manually calculate retroactive payments when escalator changes occur. Police manually calculates all benefit changes and enters these changes on a manual worksheet for each individual. The manual worksheets are in a format that could be easily converted to a spreadsheet software application for calculating City and LEOFF benefits. A spreadsheet could potentially be linked to the Access database used to maintain participant information. We also believe that the use of a spreadsheet application for Fire's calculations of retroactive payments would provide for added efficiency.

All three systems use manual files to maintain retirement eligibility and option selection information. We understand that Fire is considering the use of optical imaging technology to store these manual files. We believe such a system would benefit all pension funds in that important information could be backed up in an electronic media, stored off-site, thereby providing better protection against loss of important participant information.

We understand that Police and Fire will have the same direct access to the City's HRIS system that SCERS has. This should provide for more efficient processing of retirement payments. We believe that Police and Fire would benefit from a process whereby they would automatically receive HRIS reports on compensation changes for active members from the Personnel Department's Classification and Compensation Division.

The Police system requires annual notarized affidavits of beneficiaries to demonstrate their continued program eligibility and to offset the costs of medical liability to the system. This is a good control in managing the risk that benefit payments are made to ineligible people. While this procedure may prove to be unwieldy for the 4600 SCERS retirees, the procedure is worthy of consideration by both SCERS and Fire.

Both Police and Fire manage a health care plan for LEOFF 1 active and retired members. RCW 41.26.150 requires the City to pay for necessary medical services not covered by other sources. Also both systems have obligations to pay for certain medical costs of pre-LEOFF retirees but the specific requirements differ. Police use a Medicare supplement arrangement to manage medical costs for the over age 65 group and to reduce the administrative expense of claims processing. SCERS does not manage a health care plan for City retirees.

Both Police and Fire use Blue Cross for medical claims payment services under an administrative services only (ASO) contract. Police also uses Regence Blue Shield for a portion of their membership and pays certain medical benefits directly. Each system has a dedicated staff member to oversee medical benefits processing. We reviewed the processes used by each system to oversee medical benefit processing and concluded that the staffs are knowledgeable and diligent in their oversight.

The ASO contracts do not accumulate deposits to pay for the run-out of claims if the contracts are terminated but do provide for an increased fee structure to process the run-out of claims. Neither system includes future health care costs in the calculation of the Actuarial Accrued Liabilities in their actuarial valuation report. We also noted that an amount for incurred but not reported medical claims is not included in the financial reports contained in actuarial valuations or the two systems' SFMS reports². The actuarial valuation reports provide a three-year estimate of medical benefits for cash flow forecasting and budgeting purposes. It is possible that the incurred but not reported medical claims for Fire and Police are reported in another City fund. However, we could not locate any report of incurred medical claims in the City's 1996 Comprehensive Annual Financial Report.

The combined annual medical cost for Police and Fire is approximately \$9 million. We would expect that the actuarial present value of these obligations would be a significant amount. The Fire and Police pension boards may wish to consider obtaining an estimate of the present value of these future obligations to enhance deliberations on funding mechanisms.

Recommendations

Recommendations resulting from this portion of our review have been previously discussed. The following is a summary of those recommendations:

² GASB 10, which addresses this, is ambiguous. The Office of City Auditor consulted several experts and found disagreement on whether the City needed to report this.

- Increase the use of spreadsheet software applications to enhance the efficiency of benefit recalculation and comparison processes.
- Consider expanding the use of optical imaging from the Fire system to all three systems.
- Both Police and Fire should automatically receive HRIS reports on compensation changes for active members from the Classification and Compensation Division of the Personnel Department.
- Both SCERS and Fire should consider requiring annual notarized affidavits of beneficiaries to demonstrate their continued program eligibility.
- The cost of separately administering the pension systems should be considered in light of the customer service benefits provided by the current structure. The City should fully understand the costs of alternative structures when analyzing their cost/benefit relationships.
- The Fire and Police pension boards may wish to consider obtaining an estimate of the present value of future medical claim obligations to enhance deliberations on funding mechanisms.

Investment Management

Conclusion

Based upon our review of the investment policy and the process used to monitor the SCERS investment portfolio, we believe SCERS has controls to provide reasonable assurance that the recording of transactions is complete. We also concluded that portfolio performance information is provided to decision-makers and that mechanisms to determine compliance with applicable investment policies are in place.

Overview

As was previously mentioned, the Police Fund has no investment portfolio, the Firefighters' Fund has a small fixed income investment portfolio and the SCERS manages a significant investment portfolio. The Firefighters' Fund fixed income investments of approximately \$1,140,000 are managed by the City's Finance Director. SCERS manages an investment portfolio of approximately \$1,400,000,000 and has a commensurate level of policies and procedures to address the risks inherent in a portfolio of that size.

Review of Investment Management

We compared SCERS' portfolio composition and returns with the benchmark data obtained from the *1997 Survey of State and Local Government Employee Retirement Systems* as follows.

	Benchmark Data	SCERS
Cash and short term investments	5.04	14.7
Domestic stocks	45.03	32.9
Domestic bonds	34.04	16.9
Real estate mortgages	0.93	7.9
Real estate equities	2.32	2
International fixed income	1.95	10.1
International equities	7.79	14.9
Investment return 1996	14.17	11.5
Investment return 94-96 3 years	12.02	11.2
Investment return 92-96 5 years	11.75	10.8

The benchmark data was summarized for 107 pension systems with 1000 to 49,999 active members. Over 97% of SCERS' balance in cash and short-term investments is maintained in short-term investment funds. These types of securities are probably categorized as domestic bonds in the benchmark data. As such, SCERS' investment percentage in domestic bonds would be approximately 31% instead of the 16.9% reflected above, and SCERS' cash and short term investments figure would decrease accordingly.

The most striking difference noted in this comparison is increased emphasis by SCERS on international equities and fixed income securities. The percentages for international securities are within the ranges for these types of investments stated in SCERS investment policy. While this strategy provides for increased diversification of the portfolio, it has not significantly hindered the comparative returns of SCERS versus the benchmark group of 107 systems. This asset allocation, adopted by the SCERS board, is designed to lower the risk of the portfolio. This lower risk is demonstrated by the following chart reflecting the five-year returns versus risk for the period ending December 31, 1998 obtained from a Wurts & Associates report.

CATEGORY	ANNUALIZED RETURN (%)	VOLATILITY (RISK)
TOTAL SCERS FUND	12.3	7.8
TOTAL FUNDS UNIVERSE MEDIAN	13.5	9.2
LB AGGREGATE BOND	7.3	4.7
S&P 500 INDEX	24.0	13.9

As this comparison indicates, the SCERS portfolio carries a significantly lower risk while maintaining comparable returns to the universe of managers tracked by Wurts & Associates.

We read SCERS investment policy and compared it to the model investment policy of the Municipal Treasurers' Association of the United States and Canada. We noted that the SCERS investment policy covers most items recommended by the model policy as well as other items not included in the model policy. The SCERS policy is especially strong in its discussion of performance goals by asset class and risk and diversification

management through asset allocation. Actual performance is measured against this policy and the performance measurement service provider reports any significant deviations. As such this investment policy is a living document that guides actual investment decisions.

SCERS has a well-established process for monitoring its investment advisors and provides for quarterly reconciliations between the investment managers and the custodian. This process addresses both portfolio management and financial objectives of the internal control structure.

Wurts Associates provides two distinct performance measurement services for SCERS. First, they perform a performance review of each of the managers used in the investment portfolio. They receive information from the custodian, Bank of New York (BONY) and run the data through their system against a database they obtain from Bankers Trust. The system then compares the income reflected by the custodian against the expectation from the database. Significant variances are investigated and reported. While valuations are also compared there are typically small differences due to different pricing mechanisms or how accruals are handled. Once again, only significant variances are investigated and reported. If individual managers vary from their expressed style, from the policy, or their investment results fall below the applicable benchmark, these variations are reported to the retirement board. The returns of the managers are reported against the standard for their investment style and are ranked. The second service is an "audit" whereby Wurts compares the information reported by BONY to the information reported by the managers. This service ensures that the transactions that BONY processes are the same as the transactions that the managers have processed. This service also ensures that the listing of assets reported by the managers is the same as the managers' listings. Once again, significant departures from the board's investment policy are reported.

Recommendations

The SCERS management and board may wish to consider certain aspects of the model investment policy discussed above when they next review their investment policy. Items that should be considered include:

- **Liquidity-** Safety and return on investments are discussed in the SCERS investment policy. An objective regarding liquidity could be added. Such an objective could be as simple as *"The SCERS investment portfolio will remain sufficiently liquid to enable SCERS to meet all operating requirements which might be reasonably anticipated."*
- **Authorized Financial Dealers and Institutions-** The SCERS policy provides for the duties of an Investment Advisory Committee as required by RCW 35.59. The fifth duty states "(5) Render advice to the Retirement Board relative to the desirability of and the procedure to retain investment advisors, performance measurement services, and bank custody of securities owned." The Municipal Treasurers' Association of the United States and Canada recommends that the investment policy require that a set formal process be used to select depositories and brokers/dealers in money market instruments. Because the policy is intended to endure, it should not mention specific firms or depositories. Rather, it should provide for a process that will screen out institutions that lack economic viability or whose past practices suggest that the safety of public capital would be impaired if transactions were directed to or through such firms. The screens mentioned include primary dealers qualifying under SEC Rule 15C3-1, uniform

net capital rule, public depositories qualified under state law, National Association of Securities Dealers, Inc. (NASD) certification, state registration and a current audited financial statement on file.

- **Collateralization and Safekeeping-** The SCERS policy addresses collateralization of securities lending transactions and custody of securities. Collateralization of repurchase or reverse repurchase agreements and a requirement for a master repurchase agreement could be added to the SCERS investment policy. The policy could also address whether security transactions are conducted on a delivery-versus-payment basis. SCERS could also limit collateral to an accepted list and comment as to whether collateral substitution is granted.
- **Investment Pools-** The SCERS policy addresses investments in co-mingled group trusts but does not specifically address government sponsored pools and money market mutual funds. If such investments are deemed to be authorized and suitable investments, the policy should describe the due diligence procedures required to address safety concerns.

Actuarial Reviews

Conclusion

All three systems effectively utilize the services of consulting actuaries in the management of pension funding. The actuarial assumptions adopted by the systems appear reasonable based upon experience and in comparison to peer systems. SCERS has a very favorable funding status as compared to its peer systems.

Overview

All three systems contract for actuarial services for a variety of purposes. Actuaries are used most extensively by SCERS. SCERS contracts with Milliman & Robertson, Inc., for actuarial valuation services every two years and obtains experience studies between valuations. SCERS also uses actuarial services to review the individual benefit calculations performed during the year. Fire and Police both use the same actuarial firm, William M. Mercer, Incorporated, to perform actuarial valuation services every two years and obtain experience studies between valuations.

Review of Actuarial Issues

We obtained and read the Actuarial Valuation Reports as of January 1, 1998 issued by the two consulting actuarial firms for the three systems. We discussed these actuarial reports with firm representatives. We verified that health benefits are not included in the Actuarial Accrued Liabilities for Police and Fire. We also verified that an incurred but unreported liability was not included in the statement of net assets for either plan.

We discussed the actuarial assumptions adopted by the systems with the actuaries noting that on an overall basis they are neither excessively aggressive nor conservative. Utilizing the information from the *1997 Survey of State and Local Government Employee Retirement Systems*, found on page 19 of this report, we compared the Seattle systems' actuarial and funding related statistics with benchmark data.

The comparative information shows that a majority of pension systems use the entry age cost method, as does SCERS. It also shows that Seattle's economic assumptions related to investment return, salary increases and inflation rates are generally consistent with the averages from the respective peer groups. Another notable aspect of the comparison is that employers contribution rates for SCERS are less than the peer averages even though the employee portion is more than the average. The excellent funded status of SCERS and the low post employment COLA contribute to SCERS ability to maintain contribution rates at a level below the peer average. Because Police and Fire are essentially unfunded plans, the comparisons to the peer group are less meaningful. The slightly lower salary and inflation assumptions than the peer group would tend to understate the Actuarial Accrued Liability (AAL). However, since this information is not used to determine contribution rates for Police and Fire the assumptions do not have much of a budgetary impact. These assumptions do impact the determination of the level of funding through 2018 for the Fire system. As with any actuarial assumption, actual results will be compared to the assumptions and any necessary modifications can be made at that time.

Table: Actuarial And Funding Related Statistics From 1997 Survey of State and Local Government Retirement Systems

	Benchmark <1000 Active Members	Police	Fire	Benchmark 1000- 5000 Active Members	SCERS
Percentage using entry age	60%			60%	
Average invest return assumption	7.69%	7.00%	7.00%	7.92%	8.00%
Average salary assumption	5.78%	4.00%	4.00%	5.79%	range
Average inflation	4.36%	4.00%	4.00%	4.46%	5.00%
Average funding ratio	89.20%	0.10%	1.60%	89.46%	110.70%
Employers contribution	14.94%	n/a	n/a	13.34%	8.91%
Employees contribution	5.47%	0	0	5.67%	8.03%
Actuarial Accrued Liability (AAL)	\$70,000,000	\$83,615,000	\$85,567,000	\$1,642,000,000	\$1,105,800,000
Fair value of cash & investments	\$65,000,000	\$125,000	\$1,385,000	\$1,430,000,000	\$1,224,600,000
Post employment COLA	2.49%	4.00%	4.00%	2.63%	0.67%

Table: Benchmark Data From 1997 Survey of State and Local Government Retirement Systems

	Benchmark <1000 Active Members	Police	Fire	Benchmark 1000-5000 Active Members	SCERS
Active Members	381	230	249	9,365	7,926
Retired Members	N/A	1,181	1,081	N/A	4,649
Administration Expense	\$223,000	\$392,000	\$373,000	\$1,868,000	\$1,158,000
Average Staff Size	1.2	4	4	15.4	11
Pension Only Staff	1.2	3	3	15.4	11
Pension Only Expense	N/A	\$318,184	\$296,740	N/A	N/A
Average Staff per 1000 Actives	3.15	13.04	12.05	1.64	1.39
Average Staff per 1000 Retirees	N/A	2.54	2.78	N/A	2.37
Average Pension Cost per Active	\$585.30	\$1,383.41	\$1,191.73	\$199.47	\$146.10
Average Pension Cost per Retiree	N/A	\$269.42	\$274.51	N/A	\$249.09